AF/SPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Wright J. Nee

Serial No.: 09/903,131

Filed: July 11, 2001

For: AUTOMATIC BROADCAST CHANNEL TUNING APPARATUS AND METHOD

Group Art Unit: 2642

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF IN SUPPORT OF APPEAL

FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS

Sir:

Applicant(s) herewith submit an appeal brief in support of the appeal to the Board of Appeals from the decision dated July 14, 2005, of the Primary Examiner finally rejecting claims 1 and 3-42.

The appeal brief fee of $500.00 is:

☐ Enclosed.

☐ Not required. (Fee paid in prior appeal.)

☒ Charged to Deposit Account No. **09-0465**. A duplicate copy of this sheet is enclosed.

Docket No.: ROC920000321US1
Serial No.: 09/903,131

Oral Hearing is:

☒ Not requested.

☐ Requested. See first paragraph of accompanying appeal brief.

Date: January 11, 2006

Respectfully submitted,

By _____
James R. Nock, Senior Attorney
Registration No.: 42,937

CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

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January 11, 2006
Date of Deposit

Debra A. Peterson
Debra A. Peterson

From:
IBM Corporation
Intellectual Property Law
Dept. 917, Bldg. 006-1
3605 Highway 52 North
Rochester, MN 55901

Telephone: (507) 253-4661
Fax: (507) 253-2382

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Wright J. Nee
Serial No.:	09/903,131
Filed:	July 11, 2001
Group Art Unit:	2642
Confirmation No.:	9531
For:	AUTOMATIC BROADCAST CHANNEL TUNING APPARATUS AND METHOD

Mail Stop Appeal Brief - Patents
Commissioner for Patents
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Dear Sir:

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Debra A. Peterson

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APPEAL BRIEF IN SUPPORT OF APPEAL

FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS

This is an appeal of a Final Rejection of claims 1 and 3-42 of Application Serial Number 09/903,131 filed July 11, 2001. This brief is being submitted pursuant to 37 C.F.R. 1.192. A Notice of Appeal was filed on November 11, 2005.

1. Real Party in Interest

International Business Machines Corporation is the real party in interest.

2. Related Appeals and Interferences

There are no related appeals or interferences pending with this application.

3. Status of Claims

Appellants appeal from the rejection in the July 14, 2005 Office Action of claims 1 and 3-42. The claims on appeal are set forth in Appendix A.

4. Status of Amendments

An Amendment After Final was filed on September 30, 2005 in response to the to the final rejection of July 14, 2005.

5. Summary of Claimed Subject Matter

The present invention discloses an apparatus, program product, and method in which a set of broadcast channels is automatically selected on a mobile receiver based on the mobile receiver's current location, a database of broadcast sources contained within the mobile receiver and a predefined set of user preferences. A more specific discussion of the claimed subject matter, and corresponding support within the specification and drawings of the application follow.

As stated in Claim 1, the present invention provides an apparatus for selecting broadcast signals. A first element of the apparatus is a tuner for receiving a plurality of

broadcast signals from a plurality of broadcast sources. Support for this element can be found in the Specification, page 7, lines 5-6, and in Figure 1, elements 12 and 22. The apparatus further provides a memory, the memory storing: 1) a current location of the receiver; 2) a database of broadcast sources for a plurality of broadcast locations; and 3) a set of listener preferences. Support for this element can be found in the Specification, page 8, lines 6-8 and Figure 1, element 26 (for the memory), Specification, page 8, lines 18-19, and Figure 1 element 34 (for current location of the receiver), Specification, page 8, lines 26-30, and Figure 1, element 32 (for the database of broadcast sources); and Specification, page 9, lines 4-7, and Figure 1, element 28 (for the set of listener preferences). The apparatus further provides a processor coupled to the tuner and the memory for selecting a group of broadcast signals based on a predetermined selection criteria, the predetermined selection criteria including the plurality of receivable broadcast signals, the current location of the receiver, and the set of listener preferences. Support for this element can be found in the Specification, page 8, lines 6-16, and Figure 1, element 36.

As stated in Claim 35, the present invention further provides a method for selecting broadcast signals on a receiver. The method of claim 35 begins by creating a set of user preferences. Support for this step can be found in the Specification on page 15, lines 13-14, and Figure 3, element 304. Next, the method of claim 35 loads the set of user preferences and a database of broadcast sources into the receiver. Support for this step can be found in the Specification on page 15, lines 23-25, and Figure 3, element 306. Next, the method of claim 35 determines a location for the receiver. Support for this step can be found in the Specification on page 16, lines 1-10, and Figure 3, element 308. Next, the method of claim 35 receives a plurality of broadcast channels from the plurality of broadcast services. Support for this step can be found in the Specification on page 16, lines 12-13, and Figure 3, element 310. Next, the method of claim 35 searches the database of broadcast sources and program formats based on the location of the receiver.

Support for this step can be found in the Specification on page 16, lines 13-15, and Figure 3, element 312. Next the method of claim 35 creates one or more groups of broadcast channels identified by the search based on the set of user preferences. Support for this step can be found in the Specification on page 16, lines 24-25, and Figure 3, element 314. Finally, the method of claim 35 concludes by presenting the one or more groups of broadcast channels to the user. Support for this step can be found in the Specification on page 17, lines 5-6, and Figure 3, element 316.

6. Grounds of Rejection to be Reviewed on Appeal

The Examiner has rejected claims 1, 3-6, 8, 10-14, and 18-42 under 35 U.S.C. § 102(e) as being anticipated by Marrah et al., U.S. Patent 6,728,522 (hereafter Marrah). The first issue is whether the Examiner is correct in asserting that claims 1, 3-6, 8, 10-14, and 18-41 are anticipated by the Marrah reference. Claim 42 has been cancelled by Appellant in a 37 C.F.R. § 41.33(b)(1) amendment filed concurrent with this Appeal Brief.

The Examiner has rejected claims 7, 9, and 15-17 under 35 U.S.C. § 103(a) as being unpatentable over Marrah et al., U.S. Patent 6,728,522 (hereafter Marrah). The second issue is whether the Examiner is correct in asserting that claims 7, 9, and 15-17 are obvious under 35 U.S.C. §103(a) over Marrah et al., U.S. Patent 6,728,522 (hereafter Marrah).

7. Argument

Rejection under 35 U.S.C. § 102(e)

The Examiner has rejected claims 1, 3-6, 8, 10-14, and 18-42 under 35 U.S.C. § 102(e) as being anticipated by Marrah et al., U.S. Patent 6,728,522 (hereafter Marrah). The first issue is whether the Examiner is correct in asserting that claims 1, 3-6, 8, 10-14, and 18-42 are anticipated by the Marrah reference.

With regard to Claim 1, Appellant respectfully disagrees with the assertion of the Examiner, and submits that the Marrah et al. reference neither discloses nor suggests the key claim elements of storing a set of listener preferences, and using the stored listener preferences as a predetermined selection criteria to select a group of broadcast signals.

In the Final Office Action of July 14, 2005, the Examiner states that Marrah et al. discloses and suggests storing a set of listener preferences (col. 1, lines 56-60) and using the stored listener preferences as a predetermined selection criteria to select a group of broadcast signals, citing col. 1, lines 62-65.

Appellant concedes that what is described in col. 1, lines 56-60 (i.e., a "geographic identification code") corresponds to the claim element "a current location of the receiver" in the present invention. However, Appellant respectfully submits that the additional claim element of "a set of listener preferences" is not provided by the Marrah et al. reference. In order for Marrah et al. to anticipate the present invention, it must provide all of the claim elements.

Appellant clearly describes what is meant by listener preferences in the Specification on page 9, lines 1-6 reproduced below:

> Memory 26 also includes a set of listener preferences 28. As in a conventional receiver, listener preferences can include memorized station presets; volume balance, fader, base and treble settings, etc. In addition to the conventional preferences, listener preferences 28 can include user defined programming choices, such as specific syndicated programming (e.g., Rush Limbaugh, Dr. Laura Schlessinger, Bob and Tom, Money Talk, etc.), which can be assigned to user definable pushbutton controls on receiver 12.

Thus, "listener preferences", as enumerated in the Specification of the present invention, does not include the "current location of the receiver", as claimed by the Examiner. Rather, listener preferences (i.e., user preferences), typically include specific programming choices, such as program formats or programs that are of special interest to a user. In the case of Marrah et al., there are not multiple program formats. The database of weather channels utilized by Marrah et al. is specifically directed to only one programming format (i.e., weather).

The following is a brief example of how the three program selection elements of claim 1 (1 - the current location of the receiver; 2 – a database of broadcast sources for a plurality of broadcast locations; and 3 - a set of listener preferences) work together as follows: Assume a person is traveling in an automobile across an unfamiliar area. The person is a Minnesota Vikings football team fan, and wishes to listen to the current football game, but is unfamiliar with the radio stations in the current area. By pushing a predefined "Vikings" listener preference pushbutton on their car radio, the radio will determine the current location of the radio, search a database to determine all radio stations broadcasting in the current area, then search the programming information field of all radio stations broadcasting in the current area for any stations currently carrying the listener preference (e.g., the Vikings broadcast), then tune the radio to a station matching the listener preference (i.e., broadcasting the Vikings game). In contrast to the present

invention, the weather radio of Murrah et al. works as follows: a current location of the receiver is entered, then a weather specific database (i.e., the NOAA Weather Radio SAME database) is searched for a station broadcasting weather information for the selected area. In the case of Murrah et al., there is no additional selection criteria at work beyond the receiver location, and the database of programming sources. In other words, Murrah et al. lacks a listener preference (e.g., program format, or current program) filtering criterion when determining program selection. In the case of Murrah et al. all the stations in the database are the same format (i.e., weather), so the only selection criterion is location.

The use of listener preferences within the present invention is shown in Figure 4A, element 416 (program format) and also in Figure 4B, elements 458 (program name) and 460 (program format). A discussion of the use of listener preferences as a selection criteria is also shown in the Specification, page 16, line 24 to page 17, line 14.

In summary, the present invention includes three necessary elements (1 - the current location of the receiver; 2 – a database of broadcast sources for a plurality of broadcast locations; and 3 - a set of listener preferences) that are used as the predetermined selection criteria for selecting a group of broadcast signals as described in claim 1. Appellant respectfully submits that the passage cited by the Examiner in the Advisory Action of 11/02/05 (i.e., Marrah et al. col. 1, lines 49-65) corresponds to the "current location of the receiver" and "database of broadcast sources for a plurality of broadcast locations" rather than a set of "listener preferences", as described in claim 1. In order for claim 1 to be anticipated by the Marrah et al. reference, all three elements (i.e., the "location of the receiver", the "database of broadcast sources for a plurality of broadcast locations" and "a set of listener preferences") must be provided. The Marrah et al. only provides the first two of the three necessary elements. Appellant submits that claim 1 of the present invention is allowable for this reason.

Similarly, independent claims 35 also requires a set of listener preferences, which, for reasons stated above, are missing from the Marrah et al. reference. Thus, Appellant submits that independent claim 35 is also allowable.

Claim 42 has been cancelled by Appellant in a 37 C.F.R. § 41.33(b)(1) amendment filed concurrent with this Appeal Brief.

With regard to claim 3, Appellant asserts that Marrah et al. does not distinguish between the program formats of the channels, since all of the channels in the database are exclusively weather related. The Examiner disagrees with the Appellant's assertion that all of the channels in the database are not exclusively weather related, stating that the channels are also used for AM and/or FM broadcast signals (citing column 3, lines 12-14).

Appellant respectfully submits that the database described by the Examiner and utilized by Marrah et al. (e.g., the Specific Area Message Encoding or SAME database provided by the National Oceanic and Atmospheric Administration (NOAA)) is **exclusively used for continuous weather and emergency related update to local geographic regions, and nothing else** (see Marrah et al., col. 1 lines 15-17, and col. 1 lines 35-37). The SAME database is specifically architected for weather information broadcast on 7 frequencies (162.400, 162.425, 162.450, 162.475, 162.500, 162.525 and 162.550 MHz), and cannot accommodate the frequencies utilized by AM and FM radio stations in the US.

Marrah et al. neither discloses nor suggests the use of the SAME system to distinguish between program formats for the channels, since all of the channels in the SAME database are the same format (i.e., weather related). The passage cited by the Examiner merely states that an existing AM/FM car radio may also include a weather

band, and nothing more. The passage does not disclose nor suggest any integration of existing AM or FM stations into a database that is exclusively weather related.

With regard to claim 5, Appellant submits that Marrah et al. neither discloses nor suggests that the current location of receiver entered by the listener is a zip code. The Examiner disagrees, citing column 1, lines 52-56.

The passage cited by the Examiner makes no mention whatsoever of zip codes. Further, attached in Appendix A of this appeal brief is a list of SAME database codes provided by NOAA for the state of Minnesota. As shown, the SAME system does not even use zip codes, rather the SAME system utilizes a six digit numeric code that corresponds to a county to specify the current location of the receiver, rather than a five or nine digit ZIP code. For this reason, claim 5 is submitted as being in condition for allowance.

With regard to claim 8, Appellant states that Marrah et al. neither discloses nor suggests the current location of the device being entered by the listener of a keypad integral to the device. The Examiner disagrees, citing col. 1, lines 62-65 of Marrah et al.

Appellant respectfully submits that the passage cited by the Examiner makes no reference at all to a keypad integral to the device. In fact, the passage only makes a general statement that when the radio is transmitted from one region to another region, it must be reprogrammed by the user. There is nothing in the passage that describes how this occurs. In fact, there are numerous ways by which the unit could be reprogrammed (e.g., voice command, via a flash memory card or computer disk, etc.) which do not involve the use of a keyboard integral to the device. For this reason, claim 8 is submitted as being in condition for allowance.

With regard to claim 13, the Appellant submits that Marrah et al. neither discloses nor suggests that the current location of the receiver is provided by a cellular phone internal to the apparatus. The Examiner disagrees, citing col. 2, lines 59-63 of Marrah et al.

The Appellant respectfully disagrees that the passage cited by the Examiner describes an apparatus wherein the current location of the receiver is provided by a cellular phone internal to the apparatus. The Marrah et al. passage cited by the Examiner merely states that the weather band radio may be employed as a separate stand alone device such as a portable hand held device. There is no discussion whatsoever of cellular phones in any context in this passage, much less in the context wherein the cellular phone provides the location of the receiver. Handheld devices can take several forms that have nothing to do with cellular phones (e.g., portable handheld radios, handheld PDA's, etc.). For this reason, claim 13 is submitted as in condition for allowance.

Claims 3-6, 8, 10-14, 18-34, and 35-41 depend either directly or indirectly from claims 1 and 35, which, for reasons stated above, are now submitted as allowable. As a result, claims 3-6, 8, 10-14, 18-34 and 35-41 are also now submitted as in condition for allowance.

Rejection under 35 U.S.C. § 103(a)

The Examiner has rejected claims 7, 9, and 15-17 under 35 U.S.C. § 103(a) as being unpatentable over Marrah et al., U.S. Patent 6,728,522 (hereafter Marrah). The second issue is whether the Examiner is correct in asserting that claims 7, 9, and 15-17 are obvious under 35 U.S.C. §103(a) over Marrah et al., U.S. Patent 6,728,522 (hereafter Marrah).

Appellant respectfully submits that the rejection of claims 7 and 9 is improper, since the passages cited by the Examiner (col. 3-4, lines 65-21 with regard to claim 7 and col. 3, lines 1-10 with regard to claim 9) make no mention of city codes or the use of voice input. As described previously, and shown in Appendix A, same codes are currently done on a county basis, not a city basis.

With regard to claims 15-17, the Examiner concedes that Marrah does not utilize a CD-ROM disk, a CD-RW disk or a writable DVD. The Examiner states that the database of broadcast services is provided to the receiver by a removable memory module, yet the passage cited by the Examiner (col. 5, lines 45-50), makes no mention of a memory module in any context.

For these reasons, claims 7, 9, and 15-17 are now submitted as allowable.

Summary

Appellant expressly states that the rejected claims (i.e., claims 1 and 3-42) do not stand or fall together. Appellant has grouped the claims on the basis of the rejections of the Examiner and has organized this brief accordingly. Reasons why each claim group is separately patentable are provided in the Argument section of this appeal brief.

8. Claims Appendix

1. (Previously Amended) An apparatus for selecting broadcast signals, the apparatus comprising:

a tuner for receiving a plurality of broadcast signals from a plurality of broadcast sources:

a memory, the memory including:

a current location of the receiver;

a database of broadcast sources for a plurality of broadcast locations;

a set of listener preferences; and

a processor coupled to the tuner and the memory for selecting a group of broadcast signals based on a predetermined selection criteria,

wherein the predetermined selection criteria includes the plurality of receivable broadcast signals, the current location of the receiver, and the set of listener preferences.

2. (Cancelled)

3. (Previously Amended) The apparatus of claim 1, wherein the database of broadcast sources further includes program formats for a plurality of broadcast locations.

4. (Original) The apparatus of claim 1, wherein the current location of the receiver is entered by the listener.

5. (Original) The apparatus of claim 4, wherein the current location entered by the listener is a zip code.

6. (Original) The apparatus of claim 4, wherein the current location entered by the listener is a city code.

7. (Original) The apparatus of claim 4, wherein the current location entered by the listener is a city name.

8. (Original) The apparatus of claim 4, wherein the current location entered by the listener is entered via a keypad integral to the apparatus.

9. (Original) The apparatus of claim 4, wherein the current location entered by the listener is entered via voice input.

10. (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a global positioning system (GPS) receiver integral to the apparatus.

11. (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a global positioning system (GPS) receiver external to the apparatus.

12. (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a cellular phone integral to the apparatus.

13. (Original) The apparatus of claim 1, wherein the current location of the receiver is provided by a cellular phone external to the apparatus.

14. (Original) The apparatus of claim 1, wherein the database of broadcast services is provided to the receiver by a removable memory module.

15. (Original) The apparatus of claim 1, wherein the database of broadcast services is provided to the receiver by a CD-ROM disc.

16. (Original) The apparatus of claim 1, wherein the database of broadcast services is provided to the receiver by a CD-RW disc.

17. (Original) The apparatus of claim 1, wherein the database of broadcast services is provided to the receiver by a writable DVD.

18. (Original) The apparatus of claim 1, wherein the apparatus further includes an I/O port for transferring information from an external device to the apparatus.

19. (Original) The apparatus of claim 18, wherein the external device is coupled to the I/O port via a wired connection.

20. (Original) The apparatus of claim 18, wherein the external device is coupled to the I/O port via a wireless connection.

21. (Original) The apparatus of claim 20, wherein the wireless connection is an RF connection.

22. (Original) The apparatus of claim 20, wherein the wireless connection is an IR connection.

23. (Original) The apparatus of claim 20, wherein the external device is a personal digital assistant (PDA).

24. (Original) The apparatus of claim 20, wherein the external device is a personal computer (PC).

25. (Original) The apparatus of claim 20, wherein the external device is a wireless phone.

26. (Original) The apparatus of claim 20, wherein the transferred information includes the current location of the receiver.

27. (Original) The apparatus of claim 20, wherein the transferred information is passed between two or more external devices prior to being passed to the I/O port of the apparatus.

28. (Original) The apparatus of claim 20, wherein the transferred information includes the database of broadcast sources and program formats.

29. (Original) The apparatus of claim 20, wherein the transferred information includes the set of user preferences.

30. (Original) The apparatus of claim 29, wherein the set of user preferences includes favorite program formats.

31. (Original) The apparatus of claim 29, wherein the set of user preferences includes specific program choices.

32. (Original) The apparatus of claim 1, wherein the database of broadcast sources comprises a plurality of broadcast source entries, each of the plurality of broadcast source entries comprising: a station identifier, a station format, and a station location.

33. (Original) The apparatus of claim 1, wherein the receiver is mounted within a mobile vehicle.

34. (Original) The apparatus of claim 1, wherein the receiver is a hand-held device.

35. (Original) A method for selecting broadcast signals on a receiver, the method comprising:

creating a set of user preferences;

loading the set of user preferences and a database of broadcast sources into the receiver;

determining a location of the receiver;

receiving a plurality of broadcast channels from a plurality of broadcast services;

searching the database of broadcast sources and program formats based on the location of the receiver;

creating one or more groups of broadcast channels identified by the search based on the set of user preferences; and

presenting the one or more groups of broadcast channels to the user.

36. (Original) The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a global positioning service (GPS) signal; and

interpreting the GPS signal.

37. (Original) The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a location signal via a cellular phone; and

interpreting the location signal.

38. (Original) The method for selecting broadcast signals of claim 35, wherein the step of determining the location of the receiver further includes:

receiving a location identifier code entered by a user; and

interpreting location identifier code.

39. (Original) The method for selecting broadcast signals of claim 35, wherein the step of searching a database of broadcast sources and program formats based on the location of the receiver further includes:

extracting a station location from each of a plurality of broadcast source entries residing within the database of broadcast sources and program formats;

comparing the station location with the location of the receiver to determine if the receiver is within receiving range of the broadcast source; and

building a list of receivable broadcast source records for all of the broadcast sources that are within receiving range.

40. (Original) The method for selecting broadcast signals of claim 35, wherein the predetermined grouping criteria includes program format.

41. (Original) The method for selecting broadcast signals of claim 35, wherein the step of presenting the one or more groups of broadcast channels to the user further includes the step of:

assigning the one or more groups of broadcast channels to one or more user selectable controls on the receiver.

42. (Cancelled

9. Evidence Appendix

Attached as Appendix A is a listing of NOAA Weather Radio SAME county codes for the State of Minnesota.

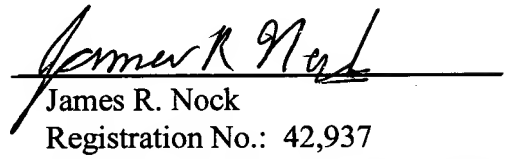
Related Proceedings Appendix

There are no related proceedings. Therefore, there are no copies of decisions rendered by a court of the Board attached here.

Appellant believes this appendix satisfies the requirements of 37 C.F.R. § 41.37(c)(x).

Respectfully submitted,

Date: January 11, 2006

By: 

James R. Nock
Registration No.: 42,937
IBM Corporation - Department 917
3605 Highway 52 North
Rochester, Minnesota 55901-7829

Telephone: (507) 253-4661
Fax No.: (507) 253-2382

APPENDIX A – NOAA Weather Radio – Minnesota County Coverage

Minnesota

County Coverage

Print

COUNTY/CITY/AREA	SAME #	NWR TRANSMITTER	FREQ.	CALL SIGN	WATTS	REMARKS
Aitkin	027001	Aitkin, MN	162.450	KZZ84	1000	North 1/2
Aitkin	027001	Coleraine, MN	162.400	KZZ29	1000	1/2 North
Aitkin	027001	Pine City, MN	162.425	WNG678	1000	Southern 1/2
Anoka	027003	Clearwater, MN	162.500	WNG676	1000	
Anoka	027003	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Anoka	027003	Pine City, MN	162.425	WNG678	1000	
Becker	027005	Detroit Lakes, MN	162.400	WXM64	300	
Becker	027005	Fergus Falls, MN	162.500	WNG680	1000	
Becker	027005	Park Rapids, MN	162.475	WWG98	1000	
Becker	027005	Waubun, MN	162.450	WNG610	300	
Beltrami	027007	Bemidji, MN	162.425	WXM99	1000	
Beltrami	027007	Roosevelt, MN	162.450	WWF45	190	
Beltrami	027007	Thief River Falls, MN	162.550	WXK43	1000	
Benton	027009	Clearwater, MN	162.500	WNG676	1000	
Benton	027009	St. Cloud, MN	162.400	WXL65	1000	
Benton	027009	Willmar, MN	162.475	WXK44	1000	
Big Stone	027011	Appleton, MN	162.550	KXI32	1000	
Big Stone	027011	Kensington, MN	162.400	WNG707	1000	
Big Stone	027011	South Shore, SD	162.425	WXM41	1000	
Blue Earth	027013	Mankato, MN	162.400	WXK40	1000	
Blue Earth	027013	New Ulm, MN	162.525	KXI39	1000	
Brown	027015	Jeffers, MN	162.450	KXI31	1000	
Brown	027015	Mankato, MN	162.400	WXK40	1000	
Brown	027015	New Ulm, MN	162.525	KXI39	1000	
Brown	027015	Olivia, MN	162.400	WNG711	300	
Carlton	027017	Aitkin, MN	162.450	KZZ84	1000	
Carlton	027017	Duluth, MN	162.550	KIG64	1000	
Carver	027019	Clearwater, MN	162.500	WNG676	1000	
Carver	027019	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Carver	027019	Norwood, MN	162.425	WNG685	300	
Cass	027021	Coleraine, MN	162.400	KZZ29	1000	North
Cass	027021	Leader, MN	162.550	WXJ64	1000	
Cass	027021	Long Prairie, MN	162.525	WNG673	1000	
Chippewa	027023	Appleton, MN	162.550	KXI32	1000	
Chippewa	027023	Olivia, MN	162.400	WNG711	300	
Chippewa	027023	Willmar, MN	162.475	WXK44	1000	
Chisago	027025	Minneapolis/St. Paul, MN	162.550	KEC65	1000	S
Chisago	027025	Pine City, MN	162.425	WNG678	1000	
Clay	027027	Detroit Lakes, MN	162.400	WXM64	300	
Clay	027027	Fargo, ND	162.475	WXK42	1000	
Clay	027027	Fergus Falls, MN	162.500	WNG680	1000	
Clearwater	027029	Bemidji, MN	162.425	WXM99	1000	
Clearwater	027029	Thief River Falls, MN	162.550	WXK43	1000	
Cook	027031	Grand Marais, MN	162.450	KXI43	300	
Cook	027031	Gun Flint Lake, MN	162.525	KXI45	300	

Cottonwood	027033	Jeffers, MN	162.450	KXI31	1000	
Cottonwood	027033	New Ulm, MN	162.525	KXI39	1000	
Crow Wing	027035	Aitkin, MN	162.450	KZZ84	1000	
Crow Wing	027035	Leader, MN	162.550	WXJ64	1000	N
Crow Wing	027035	Long Prairie, MN	162.525	WNG673	1000	
Dakota	027037	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Dodge	027039	Rochester, MN	162.475	WXK41	1000	
Douglas	027041	Kensington, MN	162.400	WNG707	1000	
Douglas	027041	Long Prairie, MN	162.525	WNG673	1000	
Faribault	027043	Mankato, MN	162.400	WXK40	1000	
Faribault	027043	New Ulm, MN	162.525	KXI39	1000	
Faribault	027043	Ringsted, IA	162.475	WNG688	300	
Fillmore	027045	Decorah, IA	162.525	KXI60	300	
Fillmore	027045	Rochester, MN	162.475	WXK41	1000	
Freeborn	027047	Mankato, MN	162.400	WXK40	1000	
Freeborn	027047	St. Ansgar, IA	162.450	KXI68	1000	
Goodhue	027049	Rochester, MN	162.475	WXK41	1000	
Grant	027051	Fergus Falls, MN	162.500	WNG680	1000	
Grant	027051	Kensington, MN	162.400	WNG707	1000	
Hennepin	027053	Clearwater, MN	162.500	WNG676	1000	
Hennepin	027053	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Hennepin	027053	Norwood, MN	162.425	WNG685	300	
Houston	027055	Decorah, IA	162.525	KXI60	300	
Houston	027055	Rochester, MN	162.475	WXK41	1000	
Hubbard	027057	Bemidji, MN	162.425	WXM99	1000	N 1/2
Hubbard	027057	Park Rapids, MN	162.475	WWG98	1000	
Hubbard	027057	Waubun, MN	162.450	WNG610	300	
Isanti	027059	Clearwater, MN	162.500	WNG676	1000	
Isanti	027059	Pine City, MN	162.425	WNG678	1000	
Itasca	027061	Coleraine, MN	162.400	KZZ29	1000	
Jackson	027063	Jeffers, MN	162.450	KXI31	1000	
Jackson	027063	Milford, IA	162.550	KZZ80	300	
Jackson	027063	New Ulm, MN	162.525	KXI39	1000	
Kanabec	027065	Aitkin, MN	162.450	KZZ84	1000	
Kanabec	027065	Pine City, MN	162.425	WNG678	1000	
Kandiyohi	027067	Appleton, MN	162.550	KXI32	1000	
Kandiyohi	027067	Olivia, MN	162.400	WNG711	300	
Kandiyohi	027067	Willmar, MN	162.475	WXK44	1000	
Kittson	027069	Lake Bronson, MN	162.525	WNG583	300	
Kittson	027069	Thief River Falls, MN	162.550	WXK43	1000	
Koochiching	027071	Elephant Lake, MN	162.450	KZZ44	300	
Koochiching	027071	International Falls, MN	162.550	WXK45	1000	
Lac qui Parle	027073	Appleton, MN	162.550	KXI32	1000	
Lac qui Parle	027073	South Shore, SD	162.425	WXM41	1000	
Lac qui Parle	027073	Willmar, MN	162.475	WXK44	1000	
Lake	027075	Duluth, MN	162.550	KIG64	1000	SW
Lake	027075	Ely, MN	162.500	KXI44	300	N
Lake	027075	Finland, MN	162.425	WNG630	300	
Lake	027075	Gun Flint Lake, MN	162.525	KXI45	300	N
Lake of the Woods	027077	Roosevelt, MN	162.450	WWF45	190	
Le Sueur	027079	Mankato, MN	162.400	WXK40	1000	
Le Sueur	027079	Norwood, MN	162.425	WNG685	300	
Lincoln	027081	Russell, MN	162.500	KXI50	1000	
Lyon	027083	Russell, MN	162.500	KXI50	1000	
McLeod	027085	Clearwater, MN	162.500	WNG676	1000	
McLeod	027085	New Ulm, MN	162.525	KXI39	1000	
McLeod	027085	Norwood, MN	162.425	WNG685	300	
McLeod	027085	Willmar, MN	162.475	WXK44	1000	
Mahnomen	027087	Detroit Lakes, MN	162.400	WXM64	300	
Mahnomen	027087	Waubun, MN	162.450	WNG610	300	

Marshall	027089	Petersburg, ND	162.400	WXM38	1000	W 1/2
Marshall	027089	Thief River Falls, MN	162.550	WXK43	1000	
Martin	027091	Mankato, MN	162.400	WXK40	1000	
Martin	027091	New Ulm, MN	162.525	KXI39	1000	
Martin	027091	Ringsted, IA	162.475	WNG688	300	
Meeker	027093	Clearwater, MN	162.500	WNG676	1000	
Meeker	027093	Norwood, MN	162.425	WNG685	300	
Meeker	027093	Willmar, MN	162.475	WXK44	1000	
Mille Lacs	027095	Aitkin, MN	162.450	KZZ84	1000	
Mille Lacs	027095	Clearwater, MN	162.500	WNG676	1000	
Mille Lacs	027095	Pine City, MN	162.425	WNG678	1000	
Mille Lacs	027095	St. Cloud, MN	162.400	WXL65	1000	S
Morrison	027097	Aitkin, MN	162.450	KZZ84	1000	
Morrison	027097	Long Prairie, MN	162.525	WNG673	1000	
Mower	027099	Rochester, MN	162.475	WXK41	1000	
Mower	027099	St. Ansgar, IA	162.450	KXI68	1000	
Murray	027101	Fulda, MN	162.425	WNG702	300	
Murray	027101	Jeffers, MN	162.450	KXI31	1000	
Murray	027101	Russell, MN	162.500	KXI50	1000	
Nicollet	027103	Mankato, MN	162.400	WXK40	1000	
Nicollet	027103	New Ulm, MN	162.525	KXI39	1000	
Nicollet	027103	Norwood, MN	162.425	WNG685	300	
Nobles	027105	Fulda, MN	162.425	WNG702	300	
Nobles	027105	Jeffers, MN	162.450	KXI31	1000	
Nobles	027105	Sioux Falls, SD	162.400	WXM28	1000	
Norman	027107	Detroit Lakes, MN	162.400	WXM64	300	
Norman	027107	Fargo, ND	162.475	WXK42	1000	
Norman	027107	Waubun, MN	162.450	WNG610	300	
Olmsted	027109	Rochester, MN	162.475	WXK41	1000	
Otter Tail	027111	Detroit Lakes, MN	162.400	WXM64	300	
Otter Tail	027111	Leader, MN	162.550	WXJ64	1000	
Otter Tail	027111	Long Prairie, MN	162.525	WNG673	1000	
Pennington	027113	Thief River Falls, MN	162.550	WXK43	1000	
Pine	027115	Aitkin, MN	162.450	KZZ84	1000	
Pine	027115	Duluth, MN	162.550	KIG64	1000	NE 1/4
Pine	027115	Pine City, MN	162.425	WNG678	1000	
Pine	027115	Spooner, WI	162.475	KZZ79	1000	
Pipestone	027117	Russell, MN	162.500	KXI50	1000	
Pipestone	027117	Sioux Falls, SD	162.400	WXM28	1000	
Polk	027119	Grand Forks, ND	162.475	WWF83	50	W 1/2
Polk	027119	Thief River Falls, MN	162.550	WXK43	1000	
Pope	027121	Appleton, MN	162.550	KXI32	1000	
Pope	027121	Kensington, MN	162.400	WNG707	1000	
Pope	027121	Long Prairie, MN	162.525	WNG673	1000	
Pope	027121	Willmar, MN	162.475	WXK44	1000	
Ramsey	027123	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Red Lake	027125	Thief River Falls, MN	162.550	WXK43	1000	
Redwood	027127	Jeffers, MN	162.450	KXI31	1000	
Redwood	027127	New Ulm, MN	162.525	KXI39	1000	
Redwood	027127	Olivia, MN	162.400	WNG711	300	
Redwood	027127	Russell, MN	162.500	KXI50	1000	
Renville	027129	Appleton, MN	162.550	KXI32	1000	
Renville	027129	New Ulm, MN	162.525	KXI39	1000	
Renville	027129	Norwood, MN	162.425	WNG685	300	
Renville	027129	Olivia, MN	162.400	WNG711	300	
Renville	027129	Willmar, MN	162.475	WXK44	1000	
Rice	027131	Mankato, MN	162.400	WXK40	1000	
Rice	027131	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Rock	027133	Sioux Falls, SD	162.400	WXM28	1000	
Roseau	027135	Roosevelt, MN	162.450	WWF45	190	

Roseau	027135	Thief River Falls, MN	162.550	WXK43	1000	
St. Louis	027137	Coleraine, MN	162.400	KZZ29	1000	Northwest
St. Louis	027137	Duluth, MN	162.550	KIG64	1000	Southeast
St. Louis	027137	Elephant Lake, MN	162.450	KZZ44	300	Northwest
St. Louis	027137	International Falls, MN	162.550	WXK45	1000	Northwest 1/4
St. Louis	027137	Virginia, MN	162.475	KZZ45	300	Northwest
Scott	027139	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Scott	027139	Norwood, MN	162.425	WNG685	300	
Sherburne	027141	Clearwater, MN	162.500	WNG676	1000	
Sherburne	027141	St. Cloud, MN	162.400	WXL65	1000	
Sibley	027143	New Ulm, MN	162.525	KXI39	1000	
Sibley	027143	Norwood, MN	162.425	WNG685	300	
Stearns	027145	Clearwater, MN	162.500	WNG676	1000	
Stearns	027145	Long Prairie, MN	162.525	WNG673	1000	
Stearns	027145	St. Cloud, MN	162.400	WXL65	1000	
Stearns	027145	Willmar, MN	162.475	WXK44	1000	
Steele	027147	Mankato, MN	162.400	WXK40	1000	
Stevens	027149	Appleton, MN	162.550	KXI32	1000	
Stevens	027149	Kensington, MN	162.400	WNG707	1000	
Stevens	027149	Willmar, MN	162.475	WXK44	1000	
Swift	027151	Appleton, MN	162.550	KXI32	1000	
Swift	027151	Willmar, MN	162.475	WXK44	1000	
Todd	027153	Leader, MN	162.550	WXJ64	1000	N
Todd	027153	Long Prairie, MN	162.525	WNG673	1000	
Traverse	027155	Kensington, MN	162.400	WNG707	1000	
Traverse	027155	South Shore, SD	162.425	WXM41	1000	
Wabasha	027157	Rochester, MN	162.475	WXK41	1000	
Wadena	027159	Detroit Lakes, MN	162.400	WXM64	300	
Wadena	027159	Leader, MN	162.550	WXJ64	1000	
Wadena	027159	Long Prairie, MN	162.525	WNG673	1000	
Wadena	027159	Park Rapids, MN	162.475	WWG98	1000	
Waseca	027161	Mankato, MN	162.400	WXK40	1000	
Washington	027163	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Watonwan	027165	Jeffers, MN	162.450	KXI31	1000	
Watonwan	027165	Mankato, MN	162.400	WXK40	1000	
Watonwan	027165	New Ulm, MN	162.525	KXI39	1000	
Wilkin	027167	Fargo, ND	162.475	WXK42	1000	
Wilkin	027167	Fergus Falls, MN	162.500	WNG680	1000	
Winona	027169	LaCrosse, MN	162.550	WXJ86	1000	
Winona	027169	Rochester, MN	162.475	WXK41	1000	
Wright	027171	Clearwater, MN	162.500	WNG676	1000	
Wright	027171	Minneapolis/St. Paul, MN	162.550	KEC65	1000	
Wright	027171	Norwood, MN	162.425	WNG685	300	
Wright	027171	Willmar, MN	162.475	WXK44	1000	
Yellow Medicine	027173	Appleton, MN	162.550	KXI32	1000	
Yellow Medicine	027173	Olivia, MN	162.400	WNG711	300	
Yellow Medicine	027173	Russell, MN	162.500	KXI50	1000	
Yellow Medicine	027173	Willmar, MN	162.475	WXK44	1000	

NOAA's National Weather Service
1325 East West Highway
Silver Spring, MD 20910
Web Master's Email: Gary Banks
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